

WHAT IS CLAIMED IS:

CLAIMS

- Claim 1. A highly superheated vapor generation system comprising:
- (1) at least one at least one superheated vapor generating chamber for generating superheated vapor from liquid;
  - (2) at least one output for output of superheated vapor from said at least one superheated vapor generating chamber; and
  - (3) means coupleable to said output for further heating said output superheated vapor from said at least one superheated vapor generating chamber.
- Claim 2. The invention as set forth in Claim 1 further including conduit means for superheated vapor from said at least one superheated vapor generating chamber, said heating means being in energy transfer contact with said conduit means whereby said heating is substantially accomplished.
- Claim 3. The invention as set forth in Claim 1 further including conduit means for superheated vapor from said superheated generating chamber, said heating means being in thermal contact with said conduit means whereby said heating is substantially accomplished.
- Claim 4. The invention as set forth in Claim 1 further including control means for controlling dissemination of superheated vapor from said at least one superheated vapor generating chamber.
- Claim 5. The invention as set forth in Claim 4 wherein said control means includes said conduit means.
- Claim 6. The invention as set forth in Claim 2 wherein said heating means is connectable to at least one power source.
- Claim 7. The invention as set forth in Claim 4 wherein said control means comprises means for controlling input of liquid to said at least one superheated vapor generating chamber whereby production of superheated vapor is controllable.

Claim 8. The invention as set forth in Claim 1 wherein said heating means comprises at least one heating element thermally contactable with said output from said at least one superheated vapor generating chamber.

Claim 9. The invention as set forth in Claim 3 wherein said heating means comprises at least one heating element thermally contactable with said conduit means.

Claim 10. The invention as set forth in Claim 9 wherein said at least one heating element comprises at least one wire in contact with at least a portion of said conduit means for generating heat upon flow of electric current in said at least one wire.

Claim 11. The invention as set forth in Claim 3 further including at least one nozzle member detachably attachable to said conduit means.

Claim 12. The invention as set forth in Claim 1 further including at least one input for input of liquid for vaporization by said at least one superheated vapor generating chamber.

Claim 13. The invention as set forth in Claim 1 wherein said further heated superheated vapor has a higher temperature than the temperature of said output superheated vapor prior to said further heating thereof.

Claim 14. The invention as set forth in Claim 13 wherein said further heated superheated vapor has a temperature substantially in the range 1500 ° F - - 2000 ° F.

Claim 15. The invention as set forth in Claim 13 where said further superheated vapor has a temperature in excess of 2000 ° F.

Claim 16. The invention as set forth in Claim 13 wherein the temperature of said further heated superheated vapor exceeds the temperature of said output superheated vapor prior to said further heating thereof by substantially at least 1000 ° F.

Claim 17. The invention as set forth in Claim 9 further including at least one handle member enclosing at least a portion of said conduit means.

Claim 18. The invention as set forth in Claim 17 further including insulation means within said handle member for insulating said handle from said superheated vapor.

Claim 19. The invention as set forth in Claim 18 wherein said insulation means comprises at least one sheath member composed of thermally insulative material.

Claim 20. The invention as set forth in Claim 16 wherein said output superheated vapor prior to said further heating has a temperature substantially in the range of 500 ° F - - 650 ° F.

Claim 21. The invention as set forth in Claim 1 wherein at least a portion of said superheated vapor comprises steam.

Claim 22. A method for providing highly superheated vapor comprising the steps of:

- (1) providing superheated vapor; and
- (2) further heating said superheated vapor.

Claim 23. The method is set forth in Claim 22 wherein the temperature of said further heated superheated vapor exceeds the temperature of said superheated vapor prior to said further heating thereof by substantially at least 1000 ° F.

Claim 24. The method as set forth in Claim 22 wherein said further superheated vapor has a temperature in excess of 2000 ° F.

Claim 25. The method as set forth in Claim 22 wherein said further heated superheated vapor has a temperature substantially in the range 1500 ° F - - 2000 ° F.

Claim 26. The method as set forth in Claim 22 wherein said superheated vapor prior to said further heating has a temperature substantially in the range of 500 ° F - - 650 ° F.

Claim 27. The method as set forth in Claim 22 wherein at least a portion of said superheated vapor comprises steam.

Claim 28. In a superheated vapor generating system including at least one superheated vapor generator, the improvement comprising means for further heating superheated vapor from said at least one superheated vapor generator.

Claim 29. The invention as set forth in Claim 28 wherein said further heated superheated vapor has a temperature substantially in the range 1500 degrees F—2000 degrees F.

Claim 30. The invention as set forth in Claim 28 wherein said further superheated vapor has a higher temperature than the temperature of said superheated vapor prior to said further heating thereof.

Claim 31. The invention as set forth in Claim 28 wherein said further heated superheated vapor has a temperature in excess of 2000 degrees F.

Claim 32. The invention as set forth in Claim 28 wherein the temperature of said further heated superheated vapor exceeds the temperature of said superheated vapor prior to said further heating thereof by substantially at least 1000 degrees F.

Claim 33. The invention as set forth in Claim 28 wherein said superheated vapor prior to further heating has a temperature substantially in the range 500 degrees F—650 degrees F.

Claim 34. The invention as set forth in Claim 28 wherein at least a portion of said superheated vapor comprises steam.

Claim 35. In a process for providing superheated vapor, the improvement comprising further heating superheated vapor provided by said process.

Claim 36. The process as set forth in Claim 35 wherein the temperature of said further heated superheated vapor exceeds the temperature of said superheated vapor prior to said further heating thereof by substantially at least 1000 degrees F.

Claim 37. The process as set forth in Claim 35 wherein said further superheated vapor has a temperature in excess of 2000 degrees F.

Claim 38. The process as set forth in Claim 35 wherein said further superheated vapor has a temperature substantially in the range 1500 degrees F – 2000 degrees F.

Claim 39. The process as set forth in Claim 35 wherein said superheated vapor prior to said further heating has a temperature substantially in the range of 500 degrees F – 650 degrees F.

Claim 40. The process as set forth in Claim 35 wherein at least a portion of said superheated vapor comprises steam.